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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,733	07/09/2003	Vladimir Mordekhay		1847

7590 05/05/2004

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EXAMINER

WELLS, NIKITA

ART UNIT PAPER NUMBER

2881

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/615,733	Applicant(s) MORDEKHAY, VLADIMIR	
	Examiner Nikita Wells	Art Unit 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09 July 2003.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-40 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-8, 15-25, 35 and 37-40 is/are rejected.

7) ☒ Claim(s) 9-14, 26-34 and 36 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>04/30/04</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____.
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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 37, are rejected under 35 U.S.C. 102(b) as being anticipated by Laiko et al. (5,965,884).

With respect to the above independent claims, Laiko et al. disclose (Fig. 1; Col. 2, lines 51-59; Col. 4, lines 26-32 and lines 51-62) an apparatus (10) and method for sample analysis of samples on sample plates by atmospheric pressure matrix assisted laser desorption ionization (MALDI) mass spectrometry comprising: a mass spectrometer (100) having a vacuum chamber (102) and an ion-sampling orifice (110) for introduction of samples (115) in the form of ionized products of laser desorption of the samples (115) into the vacuum chamber (102) of the mass spectrometer (100), at least one sample plate carrier that accommodates at least one sample plate with at least one sample; a combined moveable gripper and sample plate handling unit (114) disconnectable from the mass spectrometer (100) and having means for taking and releasing the sample plate (115), means for docked interface with the ion-sampling orifice (110), and means for holding the sample plate (115) during introduction of the ionized products of laser desorption of the samples (115) into the mass spectrometer (100).

Claim Rejections - 35 USC § 103

Art Unit: 2881

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-8, 15-25, 35, and 38-40, are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiko et al. (5,965,884) in view of M.L. Vestal (5,498,545).

With respect to claims 2-8, Laiko et al. disclose (as shown in item #2 above) an apparatus and method for sample analysis of samples on sample plates by atmospheric pressure matrix assisted laser desorption ionization (MALDI) mass spectrometry, but fails to disclose the use of a plurality of sample plates with sample plate carriers accommodating each one of the sample plates, and a sample plate carrier storage means, wherein: the sample plate carrier storage means has a sample plate handling unit combined with a gripper having a working position in which the ionized products of laser desorption of the samples are introduced into the mass spectrometer, the apparatus further comprising a first module for moving the a combined gripper and sample plate handling unit between the loading position and the working position.

However, M.L. Vestal discloses (Abstract; Figs. 4 and 5; Col. 1, lines 59-65; Col. 6, line 59 to Col. 7, line 10; and Col. 7, lines 37-47) a MALDI mass spectrometer apparatus using a plurality of sample plate carriers (87) and plates (10) and a sample plate carrier storage means (60)(see Col. 9, lines 20-50), wherein: the sample plate carrier storage means (60) has a sample plate handling unit (30) combined with a gripper (89A, 89B) and transporter having a working position in which the ionized products of laser desorption of the samples are introduced into the mass spectrometer.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize and substitute the MALDI mass spectrometer of M.L. Vestal into the atmospheric pressure MALDI apparatus of Laiko et al. in order to facilitate the analysis of the plurality of sample plates with appropriate sample plate carriers, sample plate grippers, and handling units.

With respect to claims 15-25, 35, and 38-40, M.L. Vestal discloses (Figs. 4 and 5; Col. 9, lines 20-50 and lines 53-66) a MALDI mass spectrometer apparatus, wherein the sampling orifice has a center and a longitudinal axis passing through the center and defined as Z-axis; the first module comprising a first Z-axis drive mechanism that supports a first X-axis drive mechanism and has means for moving the first X-axis drive mechanism in a direction parallel to the Z-axis; the first X-drive mechanism having first X-direction means and means for moving the first X-direction means in the direction parallel to an X-axis which is perpendicular to the Z-axis.

Allowable Subject Matter

5. Claims 9-14, 26-34, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or make obvious an atmospheric pressure (MALDI) apparatus: wherein a first Z-axis drive mechanism having means for moving in a direction of an axis parallel to the Z-axis and further incorporates a rotating stand rotatably supported by the first Z-axis drive mechanism, the rotating stand rigidly supporting the combined gripper and sample

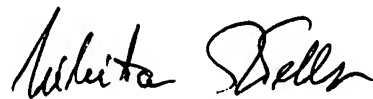
plate handling unit and having means for rotation together with the combined gripper and sample plate handling unit around an X-axis that is perpendicular to the Z-axis.

Conclusion

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Nikita Wells

Primary Examiner, Art Unit 2881

April 30, 2004